Rediscovering Champa

MICHAEL LEADBETTER
University of Sydney

AUTHOR BIOGRAPHY

Michael Leadbetter is an Honours research student in the Department of Archaeology at the University of Sydney. He holds a bachelors degree in Archaeology and Ancient History. Michael has excavated extensively in Cambodia with the Greater Angkor Project, Australia and the UK. He has conducted field research in Vietnam, Singapore, Malaysia, and Burma. He is interested in the materiality of cultural interactions, urban systems and identity construction. His current research focuses on the materiality of social power relationships and connections across the Asia-Pacific. Michael has previously written on intangible cultural heritage, the role of urban spaces in identity construction and adaptive reuse of heritage spaces.

This article argues that there is mounting evidence to enable a reassessment of the ancient Cham civilization. The current paradigm can be destabilized to offer an alternate way of thinking using new forms of evidence once considered peripheral to the primarily art historical approach taken to ancient Vietnam. In particular, landscape archaeology reveals the likelihood that Cham 'cities' were low density agro-urban complexes; this will change not only how we understand past Cham society, but its cross-cultural interactions within Asia. Ultimately these insights will contribute to our understanding of the nature of the Cham state and its collapse.

Introduction

During the first millennium CE the people known as Cham dominated the coastal river systems of Vietnam, from the Mekong delta to the Gulf of Tonkin. Little is known for sure about the origins of the Cham: their society, like many of the other Bronze–Iron Age groups, remains about as clear to us as the murky Mekong.[1]

This work undertakes a somewhat ambitious task; it seeks to 'rediscover' the Cham. In this act of 'rediscovery' I will be offering a broad overview of the polity, or polities, known as Champa and its geographical region. I shall apply a low-density model to Champa's Thu Bon River complex. This new analysis will be considered in light of what we know of the nature of riverine and low-density cultures in order to arrive at firmer ideas regarding Cham society.

Once we have achieved a greater level of understanding about Champa, the next logical step is to consider how the Cham were integrated within a regional system. This requires us to understand Cham relations along the Vietnamese coastal plain, along with those of the Dai-Viet, Khmer, Chinese and the people of the Lao Mountains. Understanding relations between the Cham and the rest of mainland Southeast Asia should lead to a greater understanding of the Cham and the historico-civilisational processes at work.

A study of the internal make-up of cities, the social implications of material evidence and patterns as well as a reappraisal of international interactions will allow for a 'rediscovery of Champa'. Only by questioning deeply entrenched narratives can we fit together the jigsaw of evidence, allowing us to better understand Champa.

Broad Overview

The Cham occupy the central and southern Vietnamese coastal plain and are distinguished from other

groups through their own pattern of material culture. A string of sites make up this materio-cultural group.

Modern Vietnam is located along the eastern coastal margin of mainland Southeast Asia, falling within the East Asian monsoonal group.

This weather system connects Vietnam to the East Asian sphere: for half of the year the winds tend South West and then reverse trending North East.[2]

Spanning along the northern margin of mainland Southeast Asia are the foothills of the Himalayas, which cut mainland Southeast Asia off from southern China. Running south of these are the mountains of Laos and western Vietnam. To the west flows the Mekong River, and to the East sits the Vietnamese coastal plain and the South China Sea.[3]The coastal plain is punctuated by river basin valleys running down to the coast. These are important as sediment-rich alluvium travels from the mountain into the valleys and the coastal plain.

At the risk of venturing into the realms of environmental determinism we can presume that the nature of the local geography made this area attractive to hunter–farmers.[4] In the case of the coastal basins, soil moves down the mountain slopes by colluviation, and favours the smaller particles like clay. These clay particles have a greater charge for attracting nutrients and are richer in nutrients. The nutrients separately move down the slope in aqueous form. The soil that is formed at the base of slopes in this manner is called colluvium, and the entire structure called a catena.[5] This process, accompanied by a regular supply of fresh water from the mountains make the river basins ideal for wet rice-farming and other forms of intensive agriculture. In contrast, the soils of the sandy coastal plains formed in situ create low quality nutrient-poor soils with a high drainage speed and low water-holding capacity. This in turn, is manifestly unsuited to flood irrigation and wet rice crops.

As noted above, little is known for sure about the origins of the Cham. We know that monumental architecture is present from at the latest, the mid first millennium. Metalworking seems to precede this by several hundred years, first with bronze tools and then with iron around the first century C.E.

During the first half of the first millennium CE, the Champa developed polities, which would continue on until the fifteenth century CE. Their northern cities began to be lost to the advancing Dai-Viet from the 10th century. However, the southern section of the Cham, known as Vijaya, held out until the 12th and 13th centuries when counter-attacks by the Khmer, combined with Mongolian Chinese Yuan raids, are thought to have weakened the polity. This led to the Dai-Viet finally overwhelming southern Champa and taking possession of the entire coastal plain and much of the Mekong delta.

Prior Approaches to 'Cham'

In understanding Champa it is important to consider past scholarship, and to appreciate different theories and how they came to be. The main forms of evidence used were Chinese and Vietnamese texts, Cham stone inscriptions, art histories and architectural analysis of brick temple structures. The colonial French approach was to construct art-historical typologies that were made to complement incomplete textual chronologies[6] .This has come at the expense of other forms of intellectual inquiry such as cultural studies, network interaction analysis, and landscape archaeology. The focus on coherent art styles skewed past scholarship to view the Cham as a homogenous imperial entity.

Current debates fall between two schools: the orthodox argues that the Cham were a united ethno-cultural state, and the revisionist school seeks to argue that the Vietnamese coastal peoples shared cultural aspects but should not be considered a state actor in the modern sense.

It is striking that these approaches come out of traditions with rather different forms of enquiry. The orthodox group had a tendency to use Chinese bureaucratic texts, extrapolating actual societies and groups from their records, particularly in the case of 'Linyi', thus creating the popular non academic view of Champa. Scholars such as Georges Maspero attempted to use modern language groups and ancient inscriptions to create retrospective ethno-states along the lines of those that had emerged in Europe in the mid 19th century and post World War I period. [7] However, these narratives of statehood tend to be framed within the terms of a decadent east destroyed by more worthy, less self-indulgent opponents; an analytical trend also found across early 'orientalist' archaeology and art history.[8]

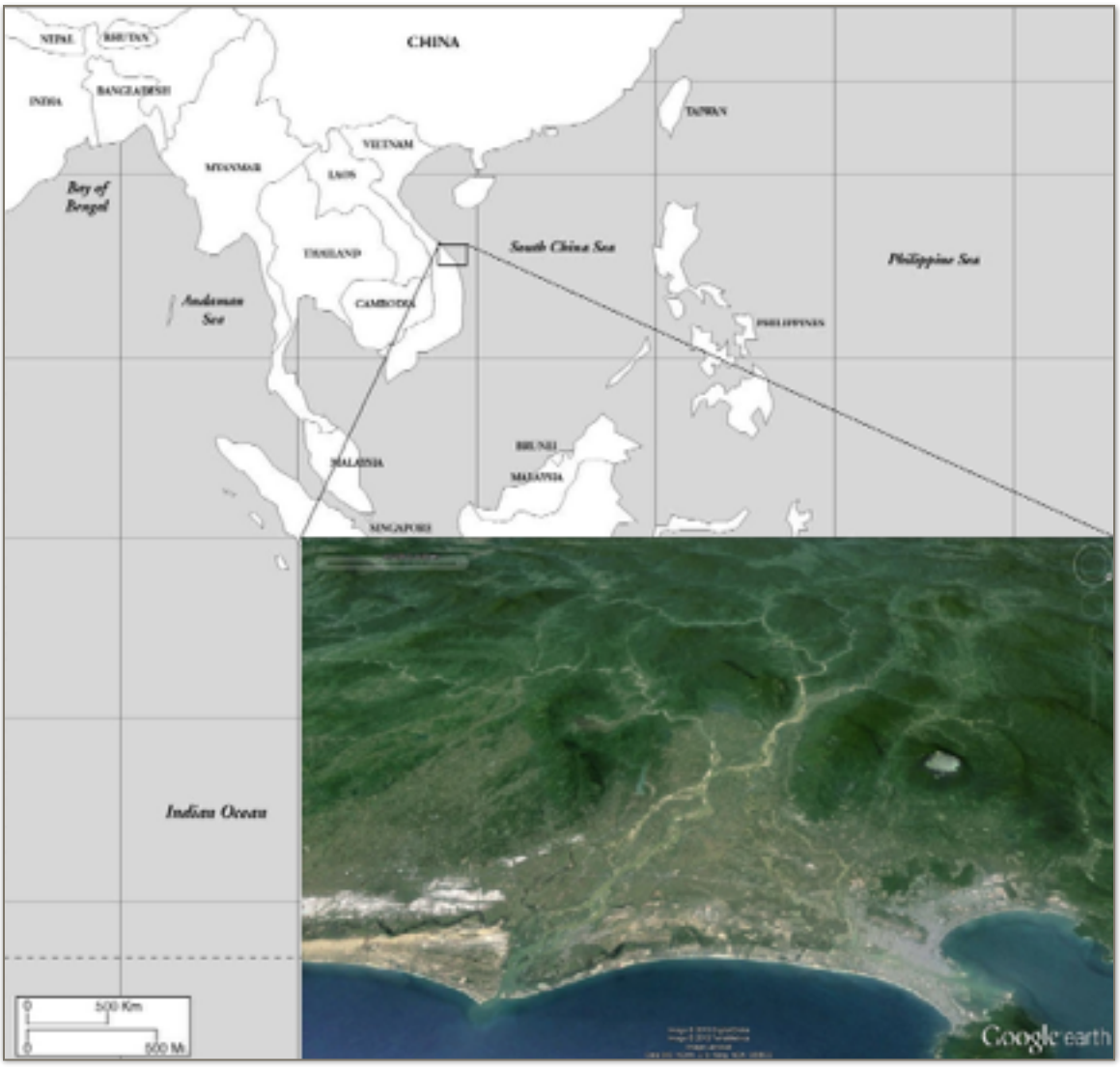

Figure 1 Map Thu Bon River Valley, Google Earth, modified M. P. Leadbetter.

The revisionist view meanwhile, deconstructs preconceived notions of 'the state' and nationhood.[9] This view tends to be conservative and is in some ways part of the middle range movement of postprocessual inquiry.[10] These views are insightful but offer little in the way of new knowledge or theory; they destroy an incorrect knowledge base but do not venture into telling us much more about 'Champa'.

A third approach is to take the concerns of the revisionists whilst applying new methods of inquiry, such as landscape archaeology, to our understanding of the communities of eastern mainland Southeast Asia. This third form not only gains from being mindful of narrative pitfalls but adds to our understanding in real terms. I argue that it is this approach that will allow us to 'rediscover' Champa.

Cham Settlement Pattern

This section will focus on the Thu Bon River complex of Vietnam (see Figure 1), which is made up of three key components: a trading delta, a fort, and temples. In this section, I shall examine the local topographical context, the three sites, and explain how their function has been previously understood. Then I shall reassess the sites in light of new data from mainland Southeast Asia and demonstrate the significance of the Thu Bon River Complex.

As stated in the previous section, Vietnam occupies a narrow stretch of plains and foothills stretching from Southern China down to the gulf of Thailand. Traditionally this coastline has been linked by land connections along the coastal plain and maritime traffic.

Much of the interior is mountainous, making overland traffic hard; thus rivers flowing from the mountainous West to the eastern coastal plain play a key role in linking the coast with the interior. During the first millennium CE, regional trade brought porcelain and other prestige goods up river, whilst jungle products (rhino horns, elephant tusks, feathers and timber), together with silk and other agricultural produce moved down the river to be integrated into the Indo-Chinese trade system .[11]

This is the backdrop to understanding the Thu Bon River complex. During the first millennium, building activity consisted of a trade settlement at the river delta (in the area of modern Hoi An), a fort to the west (Tra Kieu), controlling the convergent point of the river delta, and farther west up the river a collection of Hindu-esque temples known as My Son.

Earlier French scholars thought of these polities as a homogenous cultural entity, likely to be ruled by a single king. However academic thought emerging from the early 1990s identified Champa in terms of an 'archipelagically' defined cultural political space' where islands of land along the coastline were connected.[12] These small island communities were linked along the river valley by systems of trade and alliances.[13] In this way, each river valley may have controlled its own local geographical space.[14]

There are several ways the coastal–river spaces have been understood. The Bronson model is commonly used to create an understanding of river-based polities.[15] The primary focus of the Bronson model is the river mouth site such as 'A' (see figure 7) which is understood as the main internode between foreign markets and local resources. [16] 'A' is understood to be cut off from other 'A' centres and river systems by mountain ranges, forests, or other topographical buffers. Settlements such as 'B' and 'C' are located at primary and secondary river junctions. These were supply and distribution nodes for point 'A'. They may be controlled directly, or act as economic vassals. 'D' centres are more distant, lying at the periphery of the river basin, but are directly connected to 'A' through mechanisms of exchange: they can be understood as 'primary collection points' for 'A'. 'E' and 'F' are not directly linked to 'A' but may have some economic or representative relationship with intermediary actors such as 'D': these can be understood as distant hill-tribe persons and clans occupying more distant valleys-mountain regions. On the other end of the spectrum and scale is X, which is a well-established advanced economy, with a considerably larger consumer base then 'A'. It consumes the goods exported from 'A' and through this trade, elites at 'A' attain social status and are able to project power onto their own communities and communities upriver. This model is shown in the images below, first in its original form, then as applied to the Thu Bon River basin (see figures 2, 3 & 4).

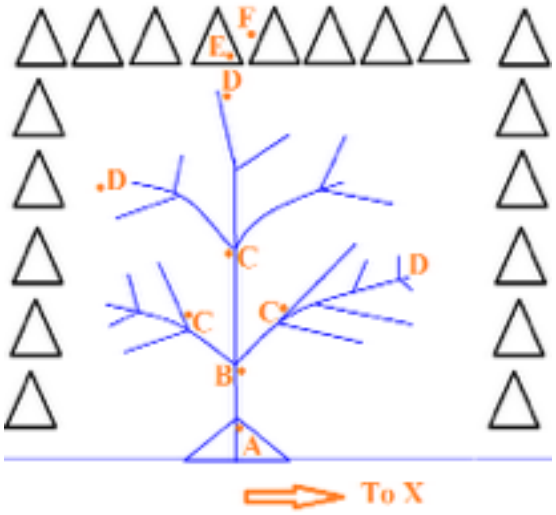

Figure 2 Bronson Model, M. P. Leadbetter 2013

In figure 7, the letter 'A' represents the coastal settlement, 'B' the fort at Tra Kieu and 'C' the My Son temple complex. 'D' indicates the culturally different groups amongst the foothills.

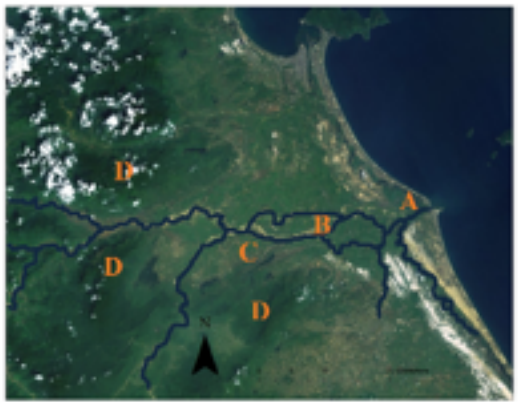

Figure 3 Bronson Model ARCGIS Overlay, M. P. Leadbetter 2013

It is thought that the key reasons for the development of fortified 'B' sites were due to coastal raids, the desire of elites for a secure space and a need to control the hinterland.[17] The theoretical connection system between these groups is shown below (see figure 4).

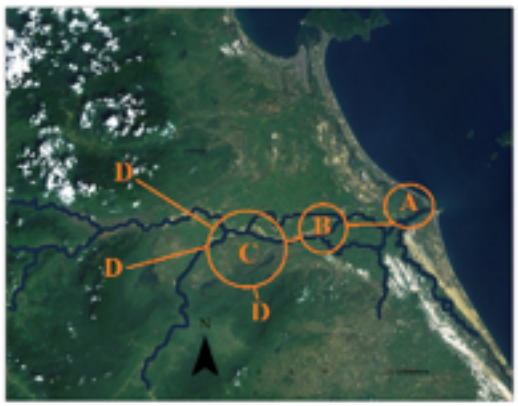

Figure 4 Bronson Model ARCGIS overlay showing connections, M. P. Leadbetter 2013

Whilst this model is the current predominant understanding of the Cham, it does not take account of the wet rice-farming methods that were being practiced in the area.[18] This means that the spaces between 'A', 'B', 'C' and 'D' were not a void, but were filled with different forms of land use. This would have led to a low density population required to tend the rice fields, creating an economic basis for trade with the neighbouring non-agrarian groups in 'D', as well as providing an economic and labour base for the construction of the My Son temples.

The settlement pattern thus corresponds with the alternative model shown below (see figure 5).

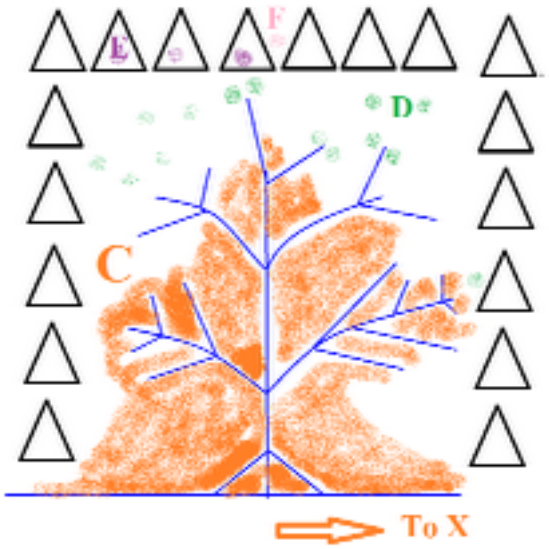

Figure 5 Alternative River Settlement Model, M. P. Leadbetter 2013

Here, 'X' represents trade with a highly developed market, in this case China, whilst 'C' is the settled basin occupied by low-density agro-urban sprawl, punctuated by areas of high density at the delta and river branches, and the Tra Kieu fort controls the key water junction. 'D' is represented in green as various communities at the upper reaches of the river system, whilst 'E' and 'F' are the communities geographically separated from the Thu Bon river complex but connected through exchanges in material commodities or prestige goods; however, they are not part of the complex per se.

The commonly accepted view of the Thu Bon River complex has been of a set of discrete entities connected across an empty landscape via systems of hierarchical linear trade and exchange. Attempts at tweaking the model have had little impact.[19] The idea of a single central entity exploiting its relationship with an economic hinterland for purposes of trade is highly Eurocentric. It originated in understandings of ancient Greek and Italian Renaissance city-states, before being canonized in the academic writings of Max Weber.

The Greater Angkor Project in Cambodia has demonstrated that applying the discrete centralised polity model to mainland Southeast Asia leads to a

complete misunderstanding of pre-modern societies.[20] This form of model can only exist if we continue to turn a blind eye to seemingly small, but vital pieces of evidence, such as the existence of wet rice farming. We need to understand that the Thu Bon valley is made up of multi-focal civic centres, (social, political, economic, religious, military) all contiguous with low density agro-urban sprawl. A suggested pattern is shown below (see figure 6).

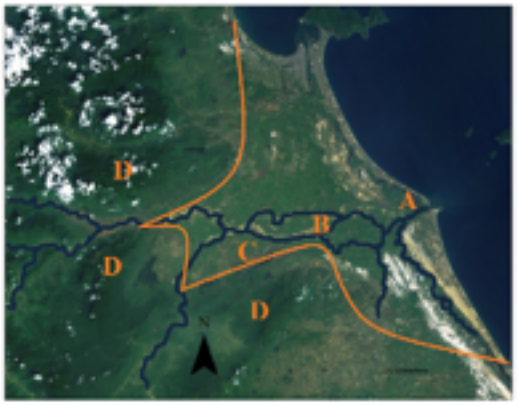

Figure 6 Possible agro urban basin, ARCGIS with overlay, M. P. Leadbetter 2013

Following this model we can conclude that the Thu Bon River valley was a large low-density city. If we accept the hypothesis that most available agricultural land along the plain and within the valley were used, the city would have extended 60 km North-South along the delta basin and up to 60 km inland. Given the trilinear topographic structure of the agricultural plain, this gives us an estimated land area of just under 1800km²; an area that is similar to greater Sydney, stretching from Palm Beach to Sutherland Shire and inland as far as Penrith.

If this was true of the Thu Bon river complex, then it was also likely to be true for other riverine basin settlements such as the Binh Dinh which had not only a trade settlement at the delta mouth, a military structure at a major river fork and hinterland temples, but also kilns along the length of the river, indicating a local craft specialisation.[21]

The low density nature of such cities often means that it is difficult to uncover physical evidence of their existence. Only large stone structures (such as Tra Kiu and the My Son temples) may stand as markers of previous occupation. After depopulation, an agricultural basin would have been reused, as has happened at modern Angkor.[22] The Thu Bon River basin thus has a great deal more to tell us than it was initially thought.

Social Implications of Low Density

If these riverine sites were indeed connected to each other, then there are great implications for the way in which we understand how Cham society functioned in the first millennium. This is in part because the density of social groups directly affects how they function and operate.[23] Urban communities require forms of infrastructure, visual signalling such as writing and complex colour coding, as well as complex social organisation. The population would be significantly high with most people engaged in subsistence wet rice farming. These communities would have been entirely dependent on the regular flow of the rivers, around which they would be distributed, as well as the North-South trade route running along the coast. Any shifts in river flow, or development of overland trade/connections could have negatively affected these cities. Low-density cities are near impossible to *effectively* wall and defend. While the surrounding mountains and sea provide a natural rampart, should invaders such as the Dai-Viet penetrate the interior or move south along the coastal plain, then there would have been no way to defend the settlements along the river. The best option would be to evacuate into the hinterland valley networks, but with a large population and local tribes belonging to different cultural groups, this would not have been a likely option. Thus, a large low-density settlement of this kind may not be able to cope with unexpected challenges.[24]

Networks

It was noted above that large low-density urban spaces are dependent on a peripheral hinterland from which to extract resources[25]. Although low-density agrarian cities are capable of producing more food per civic meter than high density counterparts, the food production level would be relatively low as compared to intensive agriculture. Thus importing food and fuel would have been important.[26] Furthermore, as wealth and class differentiation are based on interaction with other cultural groups, the Thu Bon River Complex and other riverine polities would have been even more de-

pendent on trans-regional links than previously thought[27] (see figure 7).

Figure 7 Map showing river links between the Thu Bon River System (A), rivers of the Laos Highlands (B), the Mekong Trunk River (C) and the Tonle Sap and Angkorean centres (D). ARCGIS Map with overlay, M. P. Leadbetter 2013

Because of this, there would have been a high level of mutually dependent contact between the highland population and the Cham, not only for the exchange of prestige goods, but to facilitate trade in food and commodities on the Funan Khmer Plain of the Lower Mekong.

The mountains of modern Laos may seem to be a barrier to contact between the plain of the Southeast Asian basin and the coast of Vietnam, however the map in Figure 13 demonstrates navigable water systems in the region that connect the Thu Bon River region (A) to mountain rivers (B) that join the main Mekong trunk river (C) from where it connects to the Tonle Sap Lake and Angkor D.

The significance of this is that the highland population was not merely on the periphery of a complex system, but became the interlinking node for two complex systems, that of the Khmer and the Cham. Just as in the Bronson model where the Chinese used 'A' to access hinterland commodities and goods, [28] so the 'A' centre, in this case the Cham, employed the highland regions to access resources along the Mekong River.

Meanwhile the most effective connection between civic polities along the Vietnamese coastal plain would have been via the sea. As the mountains sometimes cut across the plain, most contact between river-based communities such as the Amaravati and the Panduranga, would have been maritime in nature. These communities also competed with each other for hinterland resources.[29]

The relationship between the Cham and East Asia is vital to re-consider. Chinese maritime hubs are important to the Cham because they serve as markets for the latter's trade goods. However, the Cham, or rather polities that Chinese texts identify as the Cham, were involved in China's diplomatic tribute system.[30] The tribute role of the Cham polities intensified following the fragmentation of the Han empire. Different successor states such as the southern Wu in 230 C.E. attempted to integrate them within their own hierarchical diplomatic tribute system, but not without military resistance that would continue into the mid first millennium.[31]

The low-density nature of the Cham cities was a key factor in their fragmentation and decline in the late first millennium. As stated above, low density cities require stable access to resources.[32] Contemporary cities such as China's Chang'an were able to do this through militarily dominating the Chinese geographic heartland.[33] The cities of the Cham however, must have maintained their low-density urban complexes through complex economic networks as described above.[34] This dependence on economic networks put the Cham cities, such as the Thu Bon river valley, in a rather precarious position, as these networks began to collapse in the late first millennium.

The nature of these networks altered in a number of ways: the economic basis shifted to Canton in southern China under the Tang, military and economic conflict with the Khmer intensified and the Malay kingdoms increased coastal raids. This culminated in a major defeat of Cham forces at the hands of the Khmer in 1191. By the 13th century, the Cham polities successfully fought off a number of Mongolian invasion attempts. A period of climate instability at the end of the European Medieval Warm period would have severely damaged their already low subsistence agricultural output. This

decline continued until a major southern push by the Dai Viet in 1370 C.E who were reacting to Chinese expansion. This caused the abandonment of many Cham centres and Vietnamese domination of the coastal plain begun.

Conclusion

This work looked at the bigger picture of Cham society, analysing both natural and human landscapes, as well as diplomatic history. The findings of the study are hugely significant; changing how we understand the Cham polities. The findings are that it is likely that Cham cities were low-density urban complexes, this differs from the prior view of small high density walled and separate cities. These complexes, such as that of the Thu Bon River were entirely dependent on the stability of surrounding networks. When placed under extreme pressure, these centres collapsed, leading to the Vietnamese taking control of the coastal plain. This not only creates economic knowledge of the Cham in the Thu Bon valley, it challenges traditional South East Asian history and provides a new insight within the debate of how the Cham and other civilisations 'collapse'. These conclusions will allow us to 'rediscover' Champa.

Acknowledgements

I would like to express my gratitude to Professor Roland Fletcher for the thought provoking discussion and support with travel to Hoi An and use of GAP facilities. I am thankful for the enthusiasm and constructive comments on the original draft given by Professor Adrian Vickers and Dr Aedeen Cremin. Thanks are due to support provided by the Mandelbaum House Trust which provided me with accommodation assistance while writing this article. I would also like to thank my friend Winsome Hall for her help and patience whilst we trudged around the Vietnamese countryside.

Bibliograppihy

Barnes, Gina Lee. *State Formation in Japan Emergence of a 4th-Century Ruling Elite* [in English]. London; New York: Routledge, 2007.

BAT-VAR. "River Forms." http://www.bikealpine.-com/riverlandforms.htm.

Bayard, D. "Agriculture, Metallurgy and State Formation in Mainland Southaest Asia." *Current Anthropology* 25, no. 1 (1984): 103-05.

———. "An Early Indigenous Bronze Technology in Northeastern Thailand; Its Implications for the Prehistory of East Asia." In *The Diffusion of Material Culture*, edited by H Loofs-Wisower, 191-214. Honolulu: SSRI, 1980.

Bronson, B. "Exchange at the Upstream and Downstream Ends: Notes toward a Functional Model of the Coastal State in Southeast Asia." In *Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History and Ethnography*, edited by K L Hutterer, 39-52. University of Michigan: Ann Arbor: Center for South and Southeast Asia Studies, 1977.

Cannadine, David. *Ornamentalism : How the British Saw Their Empire* [in English]. Oxford; New York: Oxford University Press, 2001.

EBO. "Champa." http://www.britannica.com/EBchecked/topic/105118/Champa.

Erdkamp, Paul P. M. "Abhandlungen - Beyond the Limits of the 'Consumer City'. A Model of the Urban and Rural Economy in the Roman World." [In English]. *Historia : Zeitschrift für alte Geschichte.* 50, no. 3 (2001): 332.

Evans, Damian H., Roland J. Fletcher, Christophe Pottier, Jean-Baptiste Chevance, Dominique Soutif, Boun Suy Tan, Sokrithy Im, *et al.* "Uncovering Archaeological Landscapes at Angkor Using Lidar." *Proceedings of the National Academy of Sciences* 110, no. 31 (July 30, 2013 2013): 12595-600.

Fletcher, Roland. *The Limits of Settlement Growth : A Theoretical Outline* [in English]. Cambridge; New York, NY, USA: Cambridge University Press, 1995.

Gamble, Clive. *Archaeology the Basics* [in English]. London; New York: Routledge, 2000.

Glover, I. Et al. "The Cemetary of Ban Don Ta Phet, Thailand, Results from the 1980-1981 Season." In *South Asian Archaeology*, edited by B. Allchin Allachin, F. Sidell, M. Cambridge: Cambridge University Press, 1984.

Hall, K R. "Economic History of Southeast Asia." In *The Cambridge History of Southeast Asia*, edited by N Tarling, 183-275. Cambridge: Cambridge University Press, 1992.

Hall, Kenneth R. *Maritime Trade and State Development in Early Southeast Asia* [in English]. Honolulu: University of Hawaii Press, 1985.

Higham, C. *The Archaeology of Mainland South East Asia; from 10,000 Bc to the Fall of Angkor*. Cambridge: Cambridge University Press, 1989.

———. "The Development of Mandalas." Chap. 5 In *The Archaeology of Mainland South East Asia; from 10,000 B.C. To the Fall of Angkor*, edited by C Higham, 240-320. Cambridge: Cambridge University Press, 1989.

———. "The Social Structure of the Ban Na Di Prehistoric Population." Paper presented at the South East Asian Archaeology at the XV Pacific Sciences Congress, Dunedin, 1984.

Hutterer, K L. "The High Bronze Age in Southeast Asia: Introducatory Remarks." In *Conference of the High Bronze Age*. Hua Hin, Thailand, 1991.

Kennedy, J. *A Course toward Diversity: Economic Interaction and Cultural Differentiation in Prehistoric Mainland Southeast Asia*. Honolulu: University of Hawaii Press, 1977.

Layton, Robert. *An Introduction to Theory in Anthropology* [in English]. Cambridge; New York: Cambridge University Press, 1997.

Lockhart, Tran Ky Phuong &. *The Cham of Vietnam : History, Society and Art* [in English]. Singapore: NUS Press, 2011.

Mackerras, Colin Murphey Rhoads Stapleton Kristin Eileen University of Sydney. *Introduction to Asian Cultures* [in English]. Frenchs Forest: Pearson Australia, 2012.

Maspero, G. *Le Royaume De Champa*. Paris: Ecole Francaise d'Extreme-Orient, 1928.

Metcalf, Thomas R. *Ideologies of the Raj* [in English]. Cambridge; New York: Cambridge University Press, 1994.

Morley, Neville. *Metropolis and Hinterland : The City of Rome and the Italian Economy, 200 B.C.-A.D. 200* [in English]. Cambridge [England]; New York: Cambridge University Press, 1996.

Nye, P. H. "Some Soil-Forming Processes in the Humid Tropics : Ii. The Development of the Upper-Slope Member of the Catena." [In English]. *EJSS Journal of Soil Science* 6, no. 1 (1955): 51-62.

O'Reilly, Dougald J. W. *Early Civilizations of Southeast Asia* [in English]. Lanham: AltaMira Press, 2007.

O'Reilly, Dougald JW. "Champa." Chap. 6 In *Early Civilizations of Southeast Asia*, edited by Dougald JW O'Reilly, 127-44. New York: Altamira Press, 2007.

Pelliot, P. "Textes Chinois Sur Panduranga." *Bulletin de l'Ecole Francais d'Extrene-Orient* 3 (1903): 649-54.

Raab, L. Mark, and Albert C. Goodyear. "Middle-Range Theory in Archaeology: A Critical Review of Origins and Applications." *American Antiquity* 49, no. 2 (1984): 255-68.

Said, Edward W. *Orientalism* [in English]. New York: Vintage Books, 1979.

Savage, Victor R. *Western Impressions of Nature and Landscape in Southeast Asia* [in English]. Singapore: Singapore University Press, National University of Singapore, 1984.

Scarre, Christopher Fagan Brian M. *Ancient Civilizations* [in English]. Upper Saddle River, N.J.: Pearson Prentice Hall, 2008.

Solheim, W. "Early Bronze in Northeastern Thailand." *Currenty Anthropology* 9, no. 1 (1968): 59-62.

Southworth, William. Prior, Ruth. "History and Archaeology at Tra Kieu." Chap. 12 In *50 Years of Archaeology in Southeast Asia*, edited by Berenice. Bacus Bellina, Elisabeth. Pryce, Thomas. Christie, Jan., 193-93. Bangkok: River Books, 2010.

Stein, G. "World Systems Theory and Alternative Models of Interaction in the Archaeology of Culture Contact." In *Studies in Culture Contact: Interaction, Culture Change and Archaeology*, edited by Cusick J, 220-55. Carbondale: Centre for Archaeological Investigations, 1998.

Taylor, D. "The Early Kingdoms." In *The Cambridge History of Southeast Asia*, edited by N Tarling, 131-81. Cambridge: Cambridge University Press, 1992.

Vallibhotama, S. "Bronze-Iron Age Foundations Od the Origin of the State of Chnla." In *Conference of the High Bronze Age*. Hua Hin, Thailand, 1991.

Vickery, Michael National University of Singapore Asia Research Institute. *Champa Revised* [in English]. Singapore: Asia Research Institute, National University of Singapore, 2005.

Winks, Robin W., and Alaine M. Low. *The Oxford History of the British Empire. Vol. 5, Historiography* [in English]. Oxford: Oxford University Press, 1999.

Yoffee, Norman, and Andrew Sherratt. *Archaeological Theory : Who Sets the Agenda?* [in English]. Cambridge; New York: Cambridge University Press, 1993.

EndNotes

[1] W. Solheim, "Early Bronze in Northeastern Thailand," *Currenty Anthropology* 9, no. 1 (1968); J Kennedy, *A Course toward Diversity: Economic Interaction and Cultural Differentiation in Prehistoric Mainland Southeast Asia* (Honolulu: University of Hawaii Press, 1977); D Bayard, "Agriculture, Metallurgy and State Formation in Mainland Southaest Asia," *Current Anthropology* 25, no. 1 (1984); C Higham, "The Social Structure of the Ban Na Di Prehistoric Population" (paper presented at the South East Asian Archaeology at the XV Pacific Sciences Congress, Dunedin, 1984); I. Et al Glover, "The Cemetary of Ban Don Ta Phet, Thailand, Results from the 1980-1981 Season," in *South Asian Archaeology*, ed. B. Allchin Allachin, F. Sidell, M. (Cambridge: Cambridge University Press, 1984); C Higham, *The Archaeology of Mainland South East Asia; from 10,000 Bc to the Fall of Angkor* (Cambridge: Cambridge University Press, 1989); K L Hutterer, "The High Bronze Age in Southeast Asia: Introducatory Remarks," in *Conference of the High Bronze Age* (Hua Hin, Thailand1991); S Vallibhotama, "Bronze-Iron Age Foundations Od the Origin of the State of Chnla,"ibid.

[2] Colin Murphey Rhoads Stapleton Kristin Eileen University of Sydney Mackerras, *Introduction to Asian Cultures* (Frenchs Forest: Pearson Australia, 2012).

[3] Dougald J. W. O'Reilly, *Early Civilizations of Southeast Asia* (Lanham: AltaMira Press, 2007).

[4] Robert Layton, *An Introduction to Theory in Anthropology* (Cambridge; New York: Cambridge University Press, 1997).

[5] P. H. Nye, "Some Soil-Forming Processes in the Humid Tropics : Ii. The Development of the Upper-Slope Member of the Catena," *EJSS Journal of Soil Science* 6, no. 1 (1955).

[6] Clive Gamble, *Archaeology the Basics* (London; New York: Routledge, 2000); EBO, "Champa," http://www.britannica.com/EBchecked/topic/105118/Champa.

[7] G Maspero, *Le Royaume De Champa* (Paris: Ecole Francaise d'Extreme-Orient, 1928).

[8] Edward W. Said, *Orientalism* (New York: Vintage Books, 1979); Victor R. Savage, *Western Impressions of Nature and Landscape in Southeast Asia* (Singapore: Singapore University Press, National University of Singapore, 1984); Robin W. Winks and Alaine M. Low, *The Oxford History of the British Empire. Vol. 5, Historiography* (Oxford: Oxford University Press, 1999); Thomas R. Metcalf, *Ideologies of the Raj* (Cambridge; New York: Cambridge University Press, 1994).

[9] Michael National University of Singapore Asia Research Institute Vickery, *Champa Revised* (Singapore: Asia Research Institute, National University of Singapore, 2005); Dougald JW O'Reilly, "Champa," in *Early Civilizations of Southeast Asia*, ed. Dougald JW O'Reilly (New York: Altamira Press, 2007).

[10] L. Mark Raab and Albert C. Goodyear, "Middle-Range Theory in Archaeology: A Critical Review of Origins and Applications," *American Antiquity* 49, no. 2 (1984); Norman Yoffee and Andrew Sherratt, *Archaeological Theory : Who Sets the Agenda?* (Cambridge; New York: Cambridge University Press, 1993); Gamble, *Archaeology the Basics*.

[11] Tran Ky Phuong & Lockhart, *The Cham of Vietnam : History, Society and Art* (Singapore: NUS Press, 2011).

[12] D Taylor, "The Early Kingdoms," in *The Cambridge History of Southeast Asia*, ed. N Tarling (Cambridge: Cambridge University Press, 1992).

[13] K R Hall, "Economic History of Southeast Asia," ibid.

[14] O'Reilly, "Champa."

[15] B Bronson, "Exchange at the Upstream and Downstream Ends: Notes toward a Functional Model of the Coastal State in Southeast Asia," in *Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History and Ethnography*, ed. K L Hutterer (University of Michigan: Ann Arbor: Center for South and Southeast Asia Studies, 1977); O'Reilly, *Early Civilizations of Southeast Asia*; William. Prior Southworth, Ruth., "History and Archaeology at Tra Kieu," in *50 Years of Archaeology in Southeast Asia*, ed. Berenice. Bacus Bellina, Elisabeth. Pryce, Thomas. Christie, Jan. (Bangkok: River Books, 2010); Lockhart, *The Cham of Vietnam : History, Society and Art*.

[16] Bronson, "Exchange at the Upstream and Downstream Ends: Notes toward a Functional Model of the Coastal State in Southeast Asia."

[17] Southworth, "History and Archaeology at Tra Kieu."

[18] O'Reilly, "Champa."; Lockhart, *The Cham of Vietnam : History, Society and Art*.

[19] The Cham of Vietnam : History, Society and Art; O'Reilly, "Champa."

[20] Damian H. Evans et al., "Uncovering Archaeological Landscapes at Angkor Using Lidar," *Proceedings of the National Academy of Sciences* 110, no. 31 (2013).

[21] Christopher Fagan Brian M. Scarre, *Ancient Civilizations* (Upper Saddle River, N.J.: Pearson Prentice Hall, 2008).

[22] Evans et al., "Uncovering Archaeological Landscapes at Angkor Using Lidar."

[23] Roland Fletcher, *The Limits of Settlement Growth : A Theoretical Outline* (Cambridge; New York, NY, USA: Cambridge University Press, 1995).

[24] Ibid.

[25] Evans et al., "Uncovering Archaeological Landscapes at Angkor Using Lidar." Neville Morley, *Metropolis and Hinterland : The City of Rome and the Italian Economy, 200 B.C.-A.D. 200* (Cambridge [England]; New York: Cambridge University Press, 1996). G Stein, "World Systems Theory and Alternative Models of Interaction in the Archaeology of Culture Contact," in *Studies in Culture Contact: Interaction, Culture Change and Archaeology*, ed. Cusick J (Carbondale: Centre for Archaeological Investigations, 1998). Paul P. M. Erdkamp, "Abhandlungen - Beyond the Limits of the 'Consumer City'. A Model of the Urban and Rural Economy in the Roman World," *Historia : Zeitschrift für alte Geschichte.* 50, no. 3 (2001).

[26] Abhandlungen - *Beyond the Limits of the 'Consumer City'* . A Model of the Urban and Rural Economy in the Roman World.

[27] Fletcher, *The Limits of Settlement Growth : A Theoretical Outline*; Bronson, "Exchange at the Upstream and Downstream Ends: Notes toward a Functional Model of the Coastal State in Southeast Asia."; Fletcher, *The Limits of Settlement Growth : A Theoretical Outline*; David Cannadine, *Ornamentalism : How the British Saw Their Empire* (Oxford; New York: Oxford University Press, 2001). O'Reilly, "Champa."

[28] Bronson, "Exchange at the Upstream and Downstream Ends: Notes toward a Functional Model of the Coastal State in Southeast Asia."

[29] O'Reilly, "Champa."

[30] Ibid.

[31] P Pelliot, "Textes Chinois Sur Panduranga," *Bulletin de l'Ecole Francais d'Extrene-Orient* 3 (1903).

[32] Fletcher, *The Limits of Settlement Growth : A Theoretical Outline*.

[33] Ibid.

[34] Hall, *Maritime Trade and State Development in Early Southeast Asia*.